The opinion in support of the decision being entered today was <u>not</u> written for publication in a law journal and is <u>not</u> binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES L. GORECKI and YAOHUA YANG

Appeal No. 2001-1615 Application No. 09/053,251

ON BRIEF

Before URYNOWICZ, HAIRSTON and DIXON, <u>Administrative Patent</u> <u>Judges</u>.

URYNOWICZ, Administrative Patent Judge.

### Decision on Appeal

This appeal is from the final rejection of claims 1-3 and 5-26.

The invention pertains to a digital-to-analog converter.

Claim 1 is illustrative and reads as follows:

- 1. A composite digital-to-analog converter (DAC) comprising:
  - a first DAC having a first range and a first error;

Appeal No. 2001-1615 Application No. 09/053,251

a second DAC having a second range and a second error, the second range being less than the first range and greater than the first error, the second error being less than the first error; and

control circuitry for alternately selecting between the first DAC and the second DAC; wherein

the composite DAC has a composite range and a composite error; and

the second DAC is coupled to minimize the composite error such that the composite DAC has the first range and the second error.

The prior art relied upon by the examiner is:

Ginthner et al. (Ginthner)	4,998,108	Mar. 05, 1991
Gorecki et al. (Gorecki	5,510,738	Apr. 23, 1996
Gersbach	5,666,118	Sep. 09, 1997

The admitted prior art at page 11, lines 7-8 of appellants' specification.

Claims 1-3, 11-13 and 21 stand rejected under 35 U.S.C. \$ 102(b) as anticipated by Ginthner.

Claims 5-9 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginthner.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginthner in view of Gorecki.

Claims 10, 14-18 and 24-26 stand rejected under 35 U.S.C. \$ 103(a) as being unpatentable over Ginthner in view of Gersbach.

Appeal No. 2001-1615 Application No. 09/053,251

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginthner/Gersbach in view of the admitted prior art.

The respective positions of the examiner and the appellants with regard to the propriety of these rejections are set forth in the examiner's answer (Paper No.10) and the appellants' brief (Paper No. 9).

## Appellants' Invention

The invention is described at pages 2 and 3 of the brief.

### The Rejection under 35 U.S.C. § 102(b)

# Claims 1-3, 11-13 and 21

We will not sustain this rejection. Independent claims 1, 11 and 21, the only independent claims on appeal, recite "...the second range being ... greater than the first error..." or words to that effect. We agree with appellants that it has not been established that Ginthner teaches the above subject matter. The examiner's position in response to appellants' position is set forth at page 6, lines 16-21, of the answer. There, the examiner does not address appellants' position with respect to the relative sizes of the second range and the first error. It is merely asserted that Ginthner defines the second DAC's accuracy as less with respect to its range than that of the first DAC,

that because the second DAC's accuracy is lower than the first DAC's accuracy, it produces more errors than the first DAC, and that the second DAC's range is less than the first DAD's range because it uses 12 bits while the first DAC has 16 bits. None of this discussion by the examiner concerns a size comparison of the range of the second DAC (second range) and the error of the first DAC (first error)<sup>1</sup>.

## The Rejections under 35 U.S.C. § 103(a)

Whereas we will not sustain the rejection of the independent claims, we will not sustain the rejections of dependent claims 5-10, 14-20 and 22-26 under 35 U.S.C. § 103(a). None of the other prior art applied against the claims rejected under 35 U.S.C. 103(a) has been relied on by the examiner as teaching the

<sup>&</sup>lt;sup>1</sup> Although we will not sustain this rejection, we agree with the examiner that the accuracy of Ginthner's DAC's is equivalent to appellants' DAC errors. This is supported by appellants' SUMMARY portion of the specification which includes discussion of the accuracy of digital-to-analog conversion. We also agree with the examiner that Ginthner alternately selects between first and second DACs 310 and 320 based on the teaching at column 3, lines 12-19, that simultaneous switching of the first and second DACs are avoided by additional circuitry which holds the switching of the first and second DACs as necessary to avoid simultaneous switching.

Application No. 09/053,251

claimed subject matter, noted above, which is not taught by Ginthner.

#### REVERSED

STANLEY M. URYNOWICZ 3	JR.	)
Administrative Patent	Judge	)
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KENNETH W. HAIRSTON		) BOARD OF PATENT
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		) INTERFERENCES
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JOSEPH L. DIXON		)
Administrative Patent	Judge	)

Appeal No. 2001-1615 Application No. 09/053,251

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